Figure 1

Figure 2
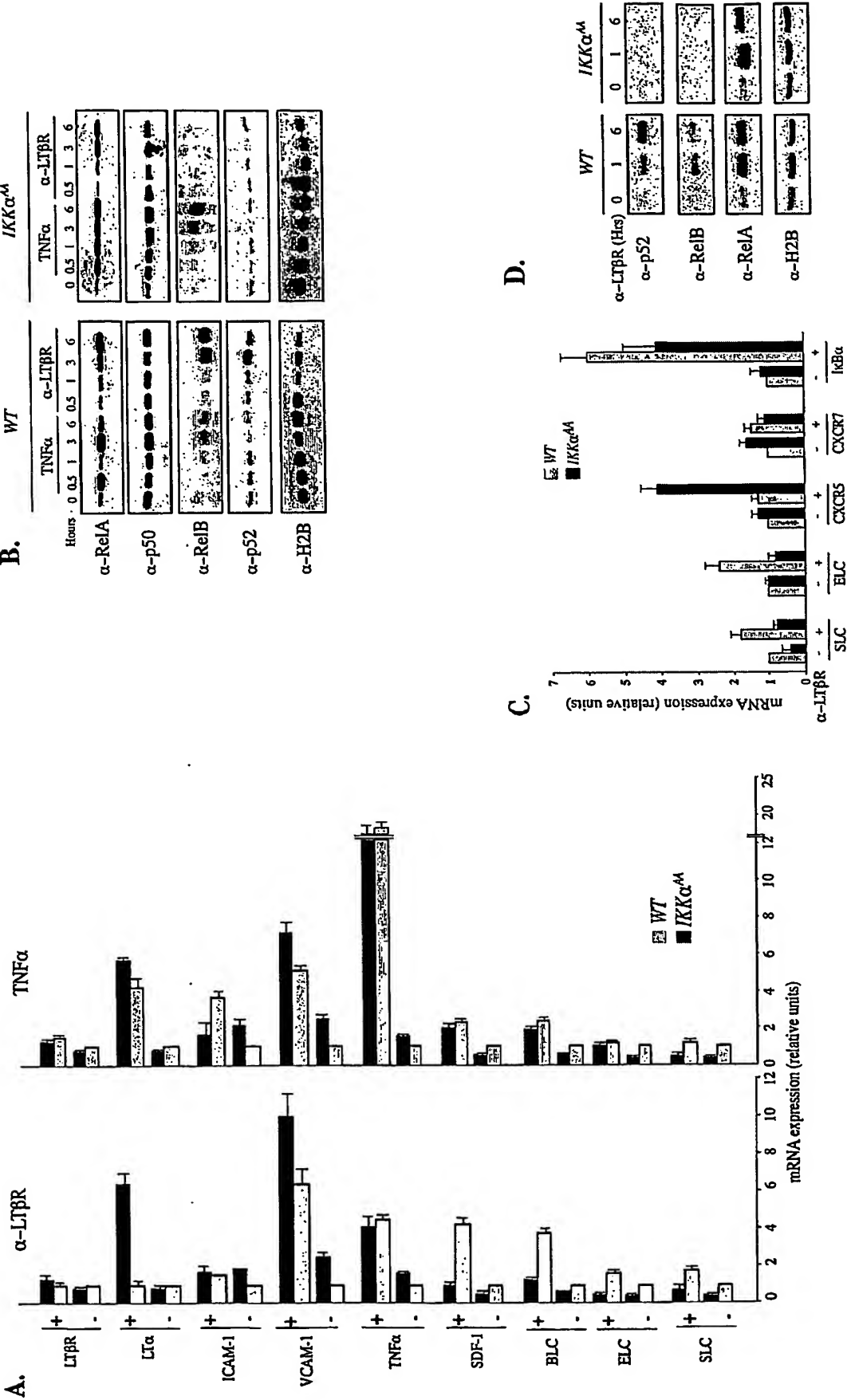
Figure 3

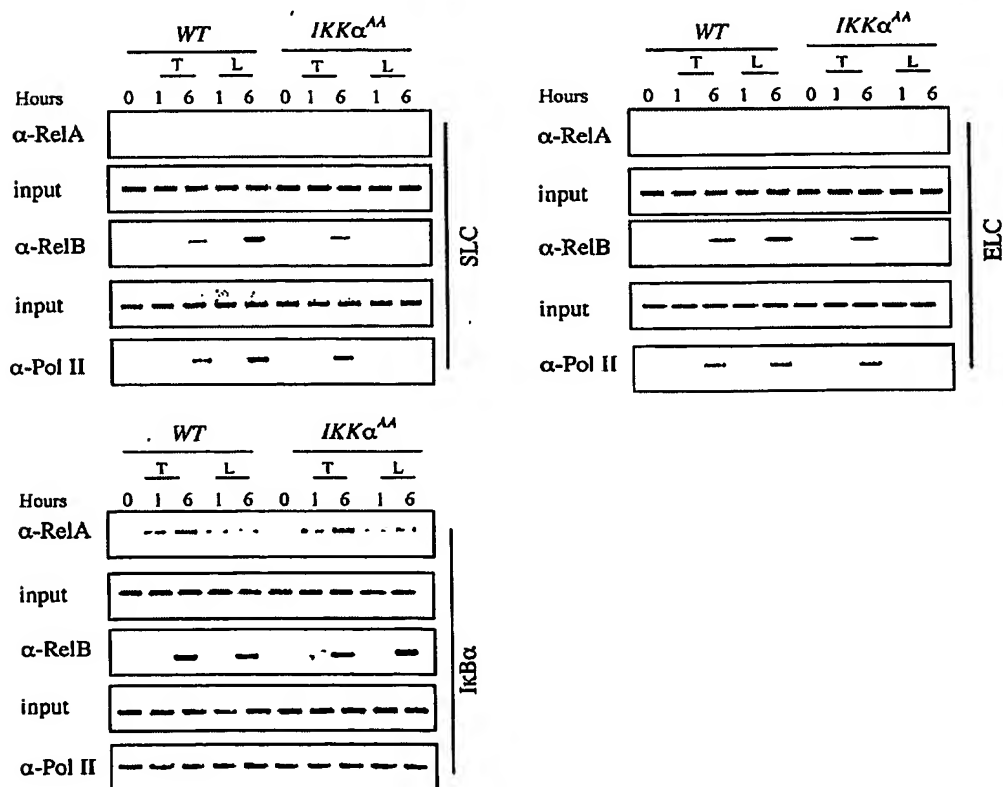# Figure 4

Figure 5

A.

NF-κB
WT

BLC-κB
WT   IKKα⁻ᐟ⁻

ELC-κB
WT   IKKα⁻ᐟ⁻

B.

ELC-κB
WT   IKKα^AA

C.

D.
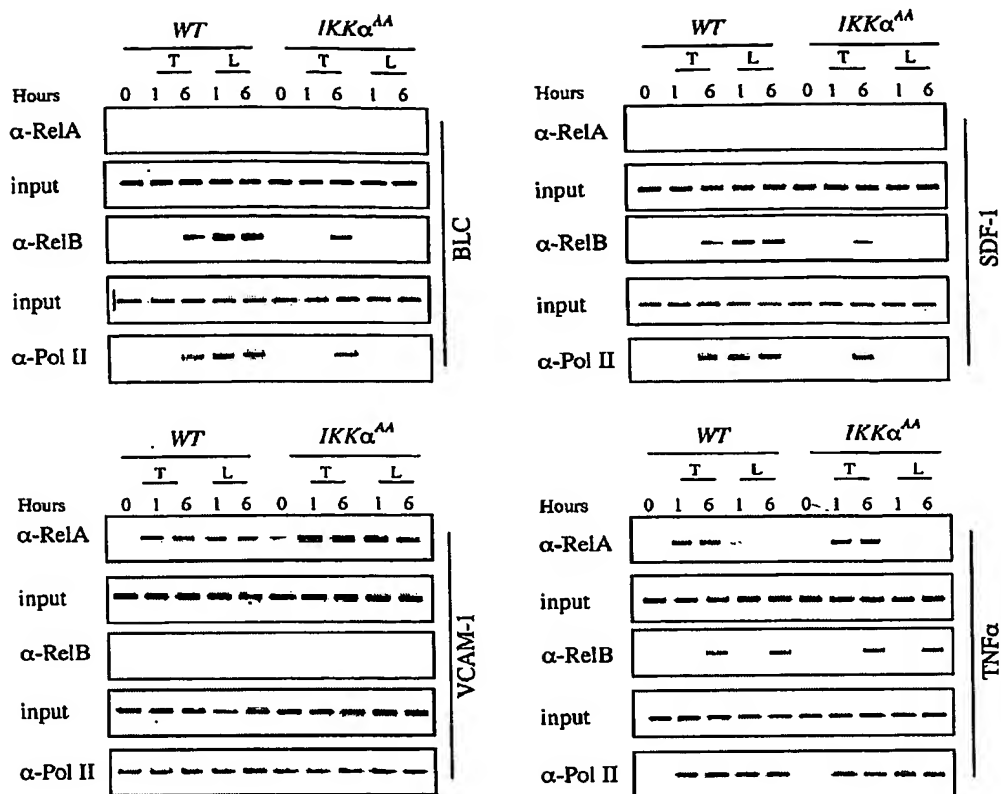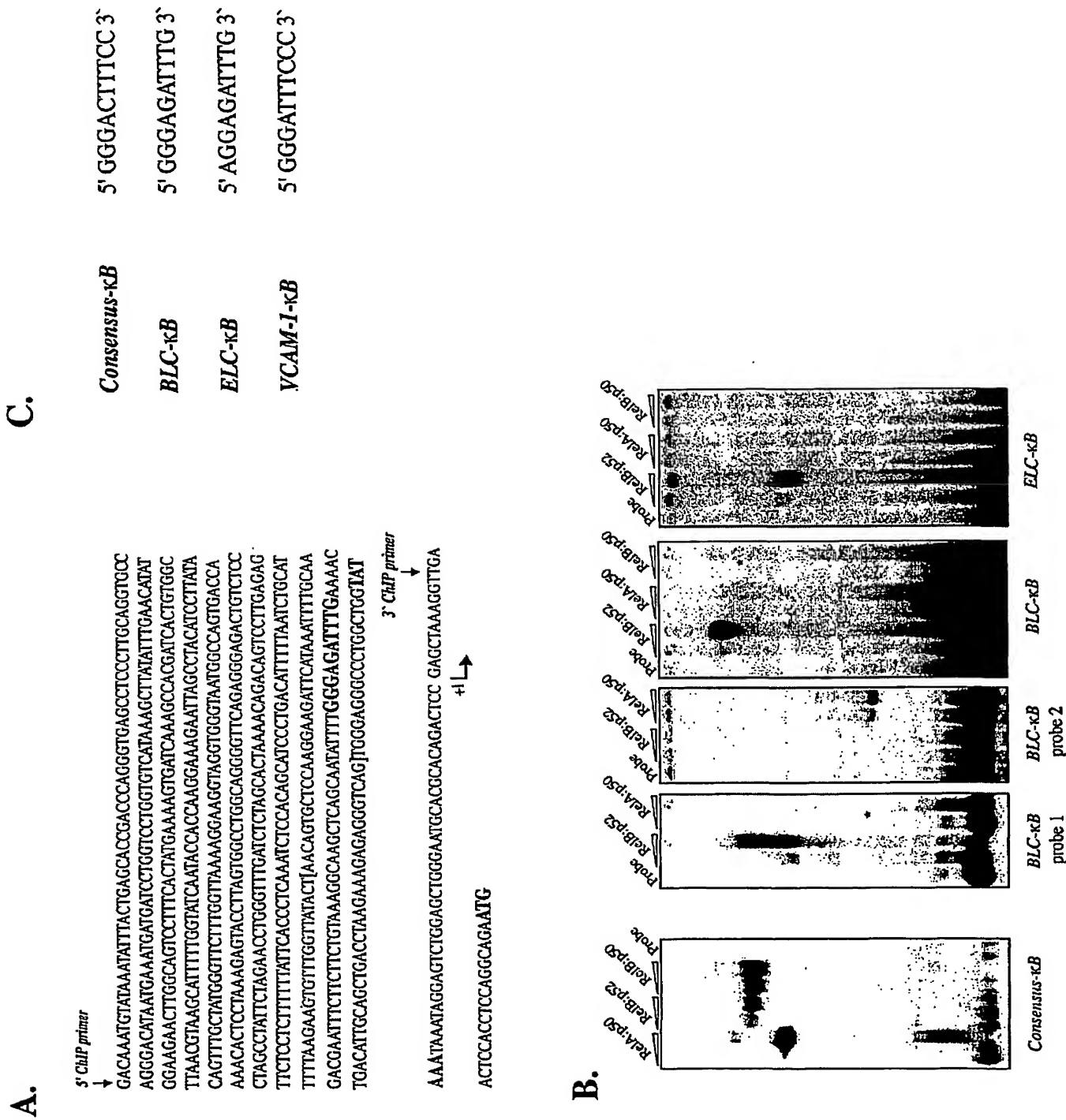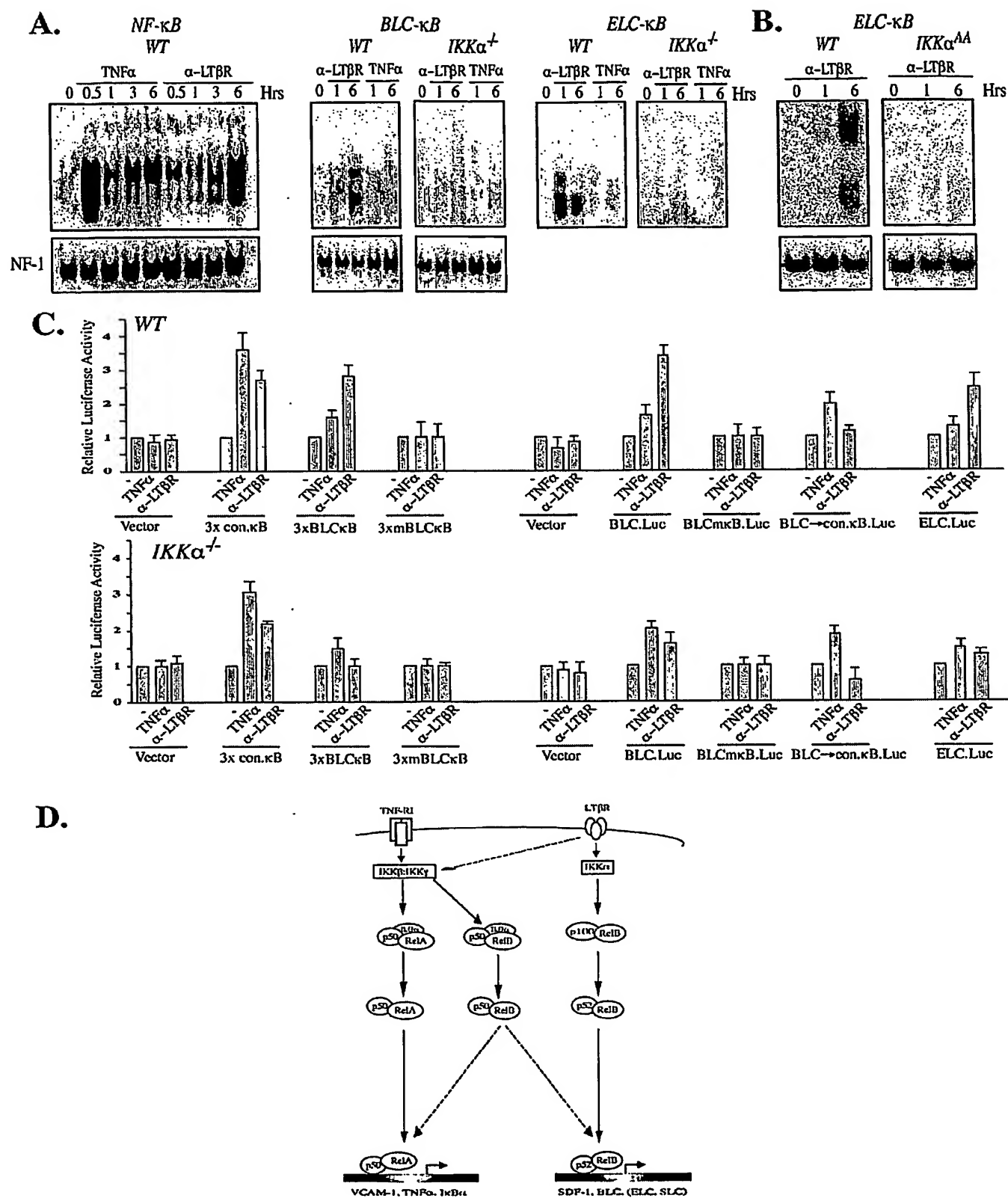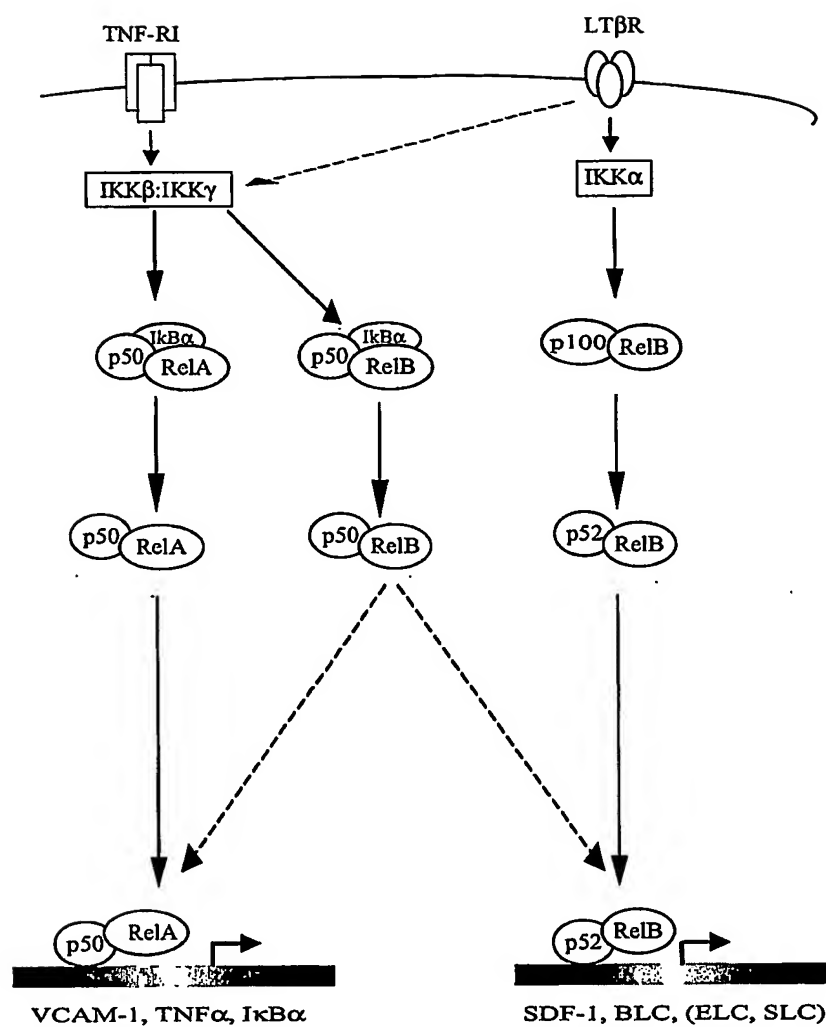
Figure 6

Figure 7

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Figure 8

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Figure 9

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3001 t
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Figure 10

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Figure 11

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```

Figure 12

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181 gatattg
```

Figure 13

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121 ecegrsagsi lgessteask tqpaielrdc gglrevevta clvwkdwphr vhphslvgkd
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Figure 14

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Figure 15

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1921 ctcaggacag attctcagag attgtacata ggggaggagg gagcaggtcc ccagccttct
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```

Figure 16

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Figure 17

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 181 gaagatgtca tggatcttat taattctgac cgggatgtaa tttcttcgcc ttccgtgttt
 241 gtttgcgagg acgcccttc tagtatcctc agtactgtaa ctgtcgcaca ttatgtgccc
 301 catgagcaat gcccatccac atcctgggct cctcagcgag aaggtccaaa tccagaatta
 361 aacatcactg agcaaccaaa acagagaggg atgcgcttcc gttaccagtg tgaggggaga
 421 tcgactggaa gtatacttgg ggagaaaagc acagagcata ataagaccct tccagagatt
 481 gagatcatca actgtgatgg gcttgaagaa attcatgtca ttgtgtgtct cgtctggaga
 541 gatcctcccc atcgcgtgca cccccatggc cttgtaggta aagactgcca taatggcatc
 601 tgtgaggtca ccctgaatcc tcagaatgga gtagcaaagc acagtttcag taatcttggc
 661 attcagtgtg tgcggaaaag ggaaatcgac tcggcggtaa atgaacggct gaaattaaat
 721 atcgatcctt ataaagctgg gaaatggcgt ctccatgaag aagtagattt gaacgtggtc
 781 agactctgct tccaggcctc ctgtactggg ccggggttta aatatgacat tcccctgtg
 841 ctttctgacc cgatctatga caagaaatct acaaatacat cagaactgaa gatttctcgc
 901 atgaacaaag aatatggacg atgtgaaggg ggcgaggagg tctatatcct ctgtgataag
 961 gttcagaaag aggatatcct ggtaatattt ggagaagata agtgggaggc tcgtgctgat
1021 ttctcacagg cagatgtgca cagacagata gcgattgtgc taaagacacc accatatcat
1081 gatctgcata tcacagaacc agcttgtgtg cgtgtgtttc tgcagaggat tacagatggc
1141 atacgcagtg aagggatgcc atttgtctac atgccacgag ttaaagatcc caatggtgtg
1201 cactctaaga ggaaacatcg ggactgttca caactcggtg atataggaga tcctgatcca
1261 catgggattg aaatgaagag aagaaaagta agacctagtt atgcagatca tttaatccct
1321 ccttacccag atataaattt acccctcatg gattccttca accataatga aggttaccac
1381 gaccttcctc tgatgaaccc tgatgaagat gcatttcact ttctcactga ggacccacat
1441 ttttcagatc tcctgacaca cgacccttac tttctggatg gttattcgaa tcaatttctg
1501 ccagaccagg tgaatggagt cacagctcat cttgtggggt ccagccttgc tttaaccgac
1561 gaagaacaac ctttaccaga ctgtgctttt aatgacagtg gttgccggag ataaccgtat
1621 attcagagat tccaatattt gactctgttt tcagcacttg aactacaaag cccacttcag
1681 ttacagtttg tatatacata gatacatgta tatatatgtg taagagagct tatagttctg
1741 ggaaatataa ggaatttctg ttgttagagg gaggataaaa cacagtgatc taaagatttc
1801 taccatgaag tcttaatatt ccatagctga caaaatggtc cctactgaag aggtccatgc
1861 ctccgcaata tggaataaag ttcacaaaca gaaagacact gaagaaacca ctatatattt
1921 ctaattctaa aaaatagata ccactttttg tatgaacttg taagctcaat aatggaccaa
1981 catttattct aggctgtaga aaagaataaa gaggaccttt taatggggag aggaatttag
2041 gaagcagtac cattggcttg tcagtaacta ggatcacaat tgcatcctcc agtaaagaca
2101 gaactctgga cttcagtggc acttgctctg tatgtacaga gatatgtatt taataaaggt
2161 agtttggtct gtttatgtga aaatatggta taggacagag gggacatagt ttttgcacta
2221 gtatatgatg acagaataga agattggtgg ttaaaaggat ttattactta atatacattt
2281 gaaacact
```

Figure 18

MADDDPYGTGQMFHLNTALTHSIFNAELYSPEIPLSTDGPYLQI

LEQPKQRGFRFRYVCEGPSHGGLPGASSEKNKKSYPQVKICNYVGPAKVIVQLVTNGK

NIHLHAHSLVGKHCEDGVCTVTAGPKDMVVGFANLGILHVTKKKVFETLEARMTEACI

RGYNPGLLVHSDLAYLQAEGGGDRQLTDREKEIIRQAAVQQTKEMDLSVVRLMFTAFL

PDSTGSFTRRLEPVVSDAIYDSKAPNASNLKIVRMDRTAGCVTGGEEIYLLCDKVQKD

DIQIRFYEEEENGGVWEGFGDFSPTDVHRQFAIVFKTPKYKDVNITKPASVFVQLRRK

SDLETSEPKPFLYYPEIKDKEEVQRKRQKLMPNFSDSFGGGSGAGAGGGGMFGSGGGG

GSTGSPGPGYGYSNYGFPPYGGITFHPGVTKSNAGVTHGTINTKFKNGPKDCAKSDDE

ESLTLPEKETEGEGPSLPMACTKTEPIALASTMEDKEQDMGFQDNLFLEKALQLARRH

ANALFDYAVTGDVKMLLAVQRHLTAVQDENGDSVLHLAIIHLHAQLVRDLLEVTSGLI

SDDIINMRNDLYQTPLHLAVITKQEDVVEDLLRVGADLSLLDRWGNSVLHLAAKEGHD

RILSILLKSRKAAPLIDHPNGEGLNAIHIAVMSNSLPCLLLLVAAGAEVNAQEQKSGR

TPLHLAVEYDNISLAGCLLLEGDAHVDSTTYDGTTPLHIAAGRGSTRLAALLKAAGAD

PLVENFEPLYDLDDSWEKAGEDEGVVPGTTPLDMAANWQVFDILNGKPYEPVFTSDDI

LPQGDMKQLTEDTRLQLCKLLEIPDPDKNWATLAQKLGLGILNNAFRLSPAPSKTLMD

NYEVSGGTIKELMEALQQMGYTEAIEVIQAAFRTPATTASSPVTTAQVHCLPLSSSST

RQHIDELRDSDSVCDSGVETSFRKLSFTESLTGDSPLLSLNKMPHGYGQEGPIEGKI

Figure 19A

```
   1 agcggccgcc gcgggcgcgc tctagcagcg caggccggag ctcagggccc cgcgcgcccg
  61 gcccgcccg cgcttctccg cccgcgccgc agccatggcg cgccgctgag ccgcccgccc
 121 gcccgcccgc gccccgaccc ggctcggctc ccgccggtcc gcgccgctcc gcagcggagc
 181 ccgcaggcga ggagaggccg cgcgcatctc cagggtaccc tcagaggcca gaagagggtg
 241 tcagagccct tgtaactgga gtttgacggt cgtgagctgc gcatcttcac catggcagac
 301 gatgatccct acggaactgg gcaaatgttt catttgaaca ctgctttgac tcactcaata
 361 tttaatgcag aattatattc accagaaata ccactgtcaa cagatggccc ataccttcaa
 421 atattagagc aaccaaaaca gaggggattt cgattccgct atgtgtgtga aggcccatca
 481 cacggagggc ttccgggagc ctctagtgag aagaacaaga aatcctaccc acaggtcaaa
 541 atttgcaact atgtggggcc tgcaaaggtt atcgttcagt tggtcacaaa tggaaaaaac
 601 atccacctgc acgcccacag cctggtgggc aagcactgtg aggacggggt atgcaccgta
 661 acagcaggac ccaaggacat ggtggttggc tttgcaaacc tgggaatact tcatgtgact
 721 aagaaaaagg tatttgaaac actggaagca cggatgacag aggcgtgtat tagggggctat
 781 aatcctggac ttctggtgca ttctgacctt gcctatctac aagcagaagg cggaggagac
 841 cggcaactca cagacagaga gaaggagatc atccgccagg cagccgtgca gcagaccaag
 901 gagatggacc tgagcgtggt gcgcctcatg ttcacagcct tcctccctga cagcactggc
 961 agcttcactc ggagactgga gcctgtggtg tcagacgcca tctatgatag caaagccccg
1021 aatgcatcca acctgaaaat cgtgagaatg gacagaacag caggatgtgt gacgggaggg
1081 gaggagattt accttctctg tgacaaggtt cagaaagatg acatccagat tcggtttttat
1141 gaagaggaag aaaatggcgg agtttgggaa ggatttgggg acttttcccc cacggatgtt
1201 catagacagt ttgccattgt cttcaaaacg ccaaagtata aggatgtcaa cattacaaag
1261 ccagcttccg tgtttgttca gcttcggagg aaatcagacc tggaaactag tgaaccgaaa
1321 cccttctct actaccctga aatcaaagac aaagaggaag tgcaaaggaa acgccagaag
1381 cttatgccga acttctcgga cagcttcggc ggcggcagtg gagcgggagc cggtggtgga
1441 ggcatgttcg gtagtggcgg tggcggaggg agtaccggaa gccctggccc agggtatggc
1501 tactcgaact acggatttcc tccctacggt gggattacat tccatcccgg agtcacgaaa
1561 tccaacgcag gggtcaccca tggcaccata aacaccaaat ttaaaaatgg ccctaaagat
1621 tgtgccaaga gtgatgacga ggagagtctg actctccctg agaaggaaac tgaaggtgaa
1681 gggcccagcc tgcccatggc ctgcaccaag acggaaccca tcgccttggc atccaccatg
1741 gaagacaagg agcaggacat gggatttcag gataacctct ttctcgagaa ggctctgcag
1801 ctcgccaggc gacacgccaa cgcccttttc gactacgcag tgacggggga tgtgaagatg
1861 ttgctggccg tgcaacgcca tctcaccgcc gtgcaggatg agaatggggga cagtgtctta
1921 cacttagcca tcatccacct ccacgctcag ctcgtgaggg atctgctgga agtcacatct
1981 ggtttgatct ctgatgacat catcaacatg agaaatgacc tgtatcagac acctctgcac
2041 ttggccgtga tcaccaagca ggaagatgta gtagaggatt tgctgagggt tggggctgac
2101 ctgagccttc tggaccgctg gggcaactct gtcctgcacc tagctgccaa agaaggacac
2161 gacagaatcc tcagcactcc tctcaagagc agaaaagcag cgcccccttat cgaccaccccc
2221 aatggggaag gtctaaatgc catccacata gctgtgatga gcaatagcct gccatgtctg
2281 ctgctgctgg tggctgccgg ggcagaagtc aatgctcagg agcagaagtc tgggcgcacg
2341 ccgctgcacc tggccgtgga gtacgacaac atctccttgg ctggctgcct gcttctggag
2401 ggtgatgccc acgtggacag taccacctat gatgggacta cacctctgca tatagcggcc
2461 ggaagagggt ccaccagact ggcagctctt ctcaaagcag caggagcaga ccccctggtg
2521 gagaactttg agcctctcta tgacctggac gactcttggg agaaggctgg agaagatgag
2581 ggagtggtgc caggtaccac accccctggac atggctgcca actggcaggt atttgacata
2641 ctaaatggga aaccgtatga gcctgtgttc acatctgatg atatactacc acaaggggac
2701 atgaagcagc tgacagaaga cacgaggcta caactctgca aactgctgga aattcctgat
2761 ccagacaaaa actgggccac tctggcacag aagttgggtc tggggatatt gaacaatgcc
2821 ttccggctga gtcctgctcc ttctaaaact ctcatggaca actatgaggt ctctgggggt
2881 accatcaaag agctgatgga ggccctgcaa cagatgggct acacagaggc cattgaagtg
2941 atccaggcag ccttccgcac cccggcaacc acagcctcca gccccgtgac cactgctcag
```

Figure 19B

```
3001 gtccactgtc tgcctctctc gtcttcctcc acgaggcagc acatagatga actccgggat
3061 agtgacagcg tctgtgacag tggtgtggag acatccttcc gcaaactcag ctttacagag
3121 tctcttactg gagacagccc actgctatct ctgaacaaaa tgccccacgg ttatgggcag
3181 gaaggaccta ttgaaggcaa aatttagcct gctggccgtt cccccacact gtgtaaacca
3241 aagccctgac agtccattgc atcgtcccaa aggaggaagg caaagcgaat ccaaaggtgc
3301 tggagaatcg ccggcctgca gggtcactcg atttcattca aggccttccg aatttggcgt
3361 ccttcttggt tctgaaatga aatgtagttg ccacgcacag acggtgtcta gcaatcatgg
3421 cgctcgctcg ctcagctgca ctctatggct caggtgcagt gtcttgagct ttctctgctg
3481 ctactggatc acatttgctt tgtgttgtta ctgctgtccc tccgctgggt tcctgctgtc
3541 attaaaaggt gtcgctgtcc ccacccggtg tcctttctag ccatctactg taagttgtgc
3601 attcaaatta agattaagga aaaacatatt tttaaatgag taccttgatg cgcaataaaa
3661 aaaaagacat ttcttttttt aatgtggttt atctgtgatt taaaaataaa aaacacatga
3721 acttatcaat atttaaaaca tgctacaatc agtgntgaaa atagtatttt ccccgtttta
3781 tgcattttac atttgtaaat atgttttcta atcaatactt taaaagaaga atgttgaatt
3841 tataaaatgc tatttacttt tttatttata ataaagtaca gcacatgtga ct
```

Figure 20

MDDLFPLIFPSEPAQASGPYVEIIEQPKQRGMRFRYKCEGRSAG

SIPGERSTDTTKTHPTIKINGYTGPGTVRISLVTKDPPHRPHPHELVGKDCRDGYYEA

DLCPDRSIHSFQNLGIQCVKKRDLEQAISQRIQTNNNPFHVPIEEQRGDYDLNAVRLC

FQVTVRDPAGRPLLLTPVLSHPIFDNRAPNTAELKICRVNRNSGSCLGGDEIFLLCDK

VQKEDIEVYFTGPGWEARGSFSQADVHRQVAIVFRTPPYADPSLQAPVRVSMQLRRPS

DRELSEPMEFQYLPDTDDRHRIEEKRKRTYETFKSIMKKSPFNGPTEPRPPTRRIAVP

TRNSTSVPKPAPQPYTFPASLSTINFDEFSPMLLPSGQISNQALALAPSSAPVLAQTM

VPSSAMVPLAQPPAPAPVLTPGPPQSLSAPVPKSTQAGEGTLSEALLHLQFDADEDLG

ALLGNSTDPGVFTDLASVDNSEFQQLLNQGVSMSHSTAEPMLMEYPEAITRLVTGSQR

PPDPAPTPLGTSGLPNGLSGDEDFSSIADMDFSALLSQISS

Figure 21

```
   1 tttactttag cgcgccgtgg gctcagctgc gaccccggcc ccgcccccgg gaccctgacc
  61 atggacgatc tgtttcccct catctttccc tcagagccag cccaggcttc tgggccttat
 121 gtggagatca tcgaacagcc gaagcaacgg ggcatgcgat tccgctataa atgcgagggg
 181 cgctcagcgg gcagtattcc tggcgagaga agcacagata ccaccaagac acaccccacc
 241 atcaagatca atggctacac aggaccagga acagttcgaa tctccctggt caccaaggat
 301 ccacctcacc ggcctcatcc acatgaactt gtggggaagg actgccggga tggctactat
 361 gaggctgacc tctgcccaga ccgcagtatc catagcttcc agaacctggg gatccagtgt
 421 gtgaagaagc gagacctgga gcaagccatt agccagcgaa tccagaccaa caataacccc
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 541 ttccaggtga cagtgcggga cccagcaggc aggcccctcc tcctgacccc tgtcctctca
 601 catccgattt ttgataaccg ggcccccaac actgccgagc tcaagatctg ccgagtaaac
 661 cggaactctg ggagctgcct cggtggggat gagatcttct tgctgtgcga caaggtgcag
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 781 caagctgatg tgcatcggca agtggccatt gtgttccgga ctcctccgta cgccgacccc
 841 agcctccagg ctcctgttcg agtctccatg cagctacggc ggccttctga tcgcgagctc
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1021 ccaactgaac cccggcctcc aacccggcgt attgctgtgc ctacccgaaa ctcaacttct
1081 gtccccaagc cagccccgca gccctacacc ttcccagcat ccctcagcac catcaacttt
1141 gatgagtttt cccccatgct gttaccatca gggcagatct caaaccaggc cctggcctta
1201 gcaccgtcct ctgccccagt ccttgcccag accatggtcc cttcctcagc catggtacct
1261 ctggctcagc cccagctcc tgccccagtt ctaaccccgg gtcctcccca gtccctgtct
1321 gcacctgttc caaagagcac ccaggctggg gaaggcacgc tgtcggaagc cctgctgcac
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1441 gtgttcacag acctggcatc tgtggacaac tcagagtttc agcagctcct gaaccagggt
1501 gtgtccatgt ctcactccac agctgagccc atgctgatgg agtaccctga agctataact
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1621 gggcttccca atggtctctc cggagatgaa gacttctcct ccattgcgga catggacttc
1681 tctgctcttt tgagtcagat cagctcctaa ggtgctgaca gcgaccctgc tcagagcacc
1741 aggtttcagg gcactgaagc cttcccgaag tgcgtacaca ttctggggag tgtgctccag
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1861 ttcggaggtg ctttcgcagg agcattaacc tcctggagac ggagctggga ggactcggtg
1921 catccctgtg ttgatagctc ctgcttcggt agggaactct gagatcctgc ttccatctcc
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2221 gatgttgctg gccgccttca gaatcagggg gagtttagtc tgacacatcc ctgctcccc
2281 tttttttcaa gtgccttaat agcagggcaa actgtagagt caggagggca ggctagatgc
2341 tcagccacaa gacagccttt actgaaaaag ctattggact cttgctcttt ctagctctga
2401 actaataaat gtcttatcac gctg
```

Figure 22

MERPPGLRPGAGGPWEMRERLGTGGFGNVCLYQHRELDLKIAIK

SCRLELSTKNRERWCHEIQIMKKLNHANVVKACDVPEELNILIHDVPLLAMEYCSGGD

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HKIIDLGYAKDVDQGSLCTSFVGTLQYLAPELFENKPYTATVDYWSFGTMVFECIAGY

RPFLHHLQPFTWHEKIKKKDPKCIFACEEMSGEVRFSSHLPQPNSLCSLIVEPMENWL

QLMLNWDPQQRGGPVDLTLKQPRCFVLMDHILNLKIVHILNMTSAKIISFLLPPDESL

HSLQSRIERETGINTGSQELLSETGISLDPRKPASQCVLDGVRGCDSYMVYLFDKSKT

VYEGPFASRSLSDCVNYIVQDSKIQLPIIQLRKVWAEAVHYVSGLKEDYSRLFQGQRA

AMLSLLRYNANLTKMKNTLISASQQLKAKLEFFHKSIQLDLERYSEQMTYGISSEKML

KAWKEMEEKAIHYAEVGVIGYLEDQIMSLHAEIMGLQKSPYGRRQGDLMESLEQRAID

LYKQLKHRPSDHSYSDSTEMVKIIVHTVQSQDRVLKELFGHLSKLLGCKQKIIDLLPK

VEVALSNIKEADNTVMFMQGKRQKEIWHLLKIACTQSSARSLVGSSLEGAVTPQTSAW

LPPTSAEHDHSLSCVVTPQDGETSAQMIEENLNCLGHLSTIIHEANEEQGNSMMNLDW   .

SWLTE

Figure 23

```
   1 tcgacggaac ctgaggccgc ttgccctccc gccccatgga gcggcccccg gggctgcggc
  61 cgggcgcggg cgggccctgg gagatgcggg agcggctggg caccggcggc ttcgggaacg
 121 tctgtctgta ccagcatcgg gaacttgatc tcaaaatagc aattaagtct tgtcgcctag
 181 agctaagtac caaaaacaga gaacgatggt gccatgaaat ccagattatg aagaagttga
 241 accatgccaa tgttgtaaag gcctgtgatg ttcctgaaga attgaatatt ttgattcatg
 301 atgtgcctct tctagcaatg gaatactgtt ctggaggaga tctccgaaag ctgctcaaca
 361 aaccagaaaa ttgttgtgga cttaaagaaa gccagatact ttctttacta agtgatatag
 421 ggtctgggat tcgatatttg catgaaaaca aaattataca tcgagatcta aaacctgaaa
 481 acatagttct tcaggatgtt ggtggaaaga taatacataa aataattgat ctgggatatg
 541 ccaaagatgt tgatcaagga agtctgtgta catcttttgt gggaacactg cagtatctgg
 601 ccccagagct ctttgagaat aagccttaca cagccactgt tgattattgg agctttggga
 661 ccatggtatt tgaatgtatt gctggatata ggcctttttt gcatcatctg cagccattta
 721 cctggcatga gaagattaag aagaaggatc caaagtgtat atttgcatgt gaagagatgt
 781 caggagaagt tcggtttagt agccatttac ctcaaccaaa tagcctttgt agtttaatag
 841 tagaacccat ggaaaactgg ctacagttga tgttgaattg ggaccctcag cagagaggag
 901 gacctgttga ccttactttg aagcagccaa gatgttttgt attaatggat cacattttga
 961 atttgaagat agtacacatc ctaaatatga cttctgcaaa gataatttct tttctgttac
1021 cacctgatga aagtcttcat tcactacagt ctcgtattga gcgtgaaact ggaataaaata
1081 ctggttctca agaacttctt tcagagacag gaatttctct ggatcctcgg aaaccagcct
1141 ctcaatgtgt tctagatgga gttagaggct gtgatagcta tatggtttat ttgtttgata
1201 aaagtaaaac tgtatatgaa gggccatttg cttccagaag tttatctgat tgtgtaaatt
1261 atattgtaca ggacagcaaa atacagcttc caattataca gctgcgtaaa gtgtgggctg
1321 aagcagtgca ctatgtgtct ggactaaaag aagactatag caggctcttt cagggacaaa
1381 gggcagcaat gttaagtctt cttagatata atgctaactt aacaaaaatg aagaacactt
1441 tgatctcagc atcacaacaa ctgaaagcta aattggagtt ttttcacaaa agcattcagc
1501 ttgacttgga gagatacagc gagcagatga cgtatgggat atcttcagaa aaaatgctaa
1561 aagcatggaa agaaatggaa gaaaaggcca tccactatgc tgaggttggt gtcattggat
1621 acctggagga tcagattatg tctttgcatg ctgaaatcat ggggctacag aagagcccct
1681 atggaagacg tcagggagac ttgatggaat ctctggaaca gcgtgccatt gatctatata
1741 agcagttaaa acacagacct tcagatcact cctacagtga cagcacagag atggtgaaaa
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2101 aacatgatca ttctctgtca tgtgtggtaa ctcctcaaga tggggagact tcagcacaaa
2161 tgatagaaga aaatttgaac tgccttggcc atttaagcac tattattcat gaggcaaatg
2221 aggaacaggg caatagtatg atgaatcttg attggagttg gttaacagaa tga
```

Figure 24

MERPPGLRPGAGGPWEMRERLGTGGFGNVSLYQHRELDLKIAIK

SCRLELSSKNRERWCHEIQIMKKLDHANVVKACDVPEELNFLINDVPLLAMEYCSGGD

LRKLLNKPENCCGLKESQILSLLSDIGSGIRYLHENKIIHRDLKPENIVLQDVGGKTI

HKIIDLGYAKDVDQGSLCTSFVGTLQYLAPELFENKPYTATVDYWSFGTMVFECIAGY

RPFLHHLQPFTWHEKIKKKDPKCIFACEEMTGEVRFSSHLPQPNSLCSLIVEPMESWL

QLMLNWDPQQRGGPIDLTLKQPRCFALMDHILNLKIVHILNMTSAKIISFLLPCDESL

HSLQSRIERETGINTGSQELLSETGISLDPRKPASQCVLDGVRGCDSYMVYLFDKSKT

VYEGPFASRSLSDCVNYIVQDSKIQLPIIQLRKVWAEAVHYVSGLKEDYSRLFQGQRA

AMLSLLRYNANLTKMKNTLISASQQLKAKLEFFRKSIQLDLERYSEQMTYGISSEKML

KAWKEMEEKAIHYSEVGVIGYLEDQIMSLHTEIMELQKSPYGRRQGDLMESLEQRAID

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VEVALSNIKEADNTVMFMQGKRQKEIWHLLKIACTQSSARSLVGSSLEGTVTPPVSAW

LPPTLADREHPLTCVVTPQDGETLAQMIEENLNCLGHLSTIIREANEDQSSSLMSLDW

SWLAE

Figure 25 (A)

```
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  61 ggccccgggg gctgcggccg ggcgcgggcg gcccctggga gatgcgggaa cggcttggca
 121 ccggcggttt cgggaacgtc agtctgtacc agcaccggga acttgatctc aaaatagcaa
 181 ttaagtcttg tcgtttagag ctaagttcca aaaacagaga gcgatggtgc catgaaatcc
 241 agatcatgaa aaagttggac catgcgaatg ttgtaaaggc ctgtgatgtc cctgaggaat
 301 tgaacttttt aattaacgat gtgcctcttc tggcaatgga gtactgttct ggaggggacc
 361 tccggaagct actcaacaaa ccagaaaatt gttgtggact taaagaaagc cagatacttt
 421 ctttactgag tgacatagga tctgggatcc gatatctgca tgaaaacaaa attatacatc
 481 gagatctaaa acctgaaaat atagttcttc aagatgttgg tgggaagaca atacataaaa
 541 taattgattt gggttatgcc aaagatgttg atcaaggaag tctctgtaca tcttttgtgg
 601 gaacattgca gtatttggcc ccagagctct ttgaaaataa gccgtacaca gccactgtgg
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1081 gtgaaacagg aataaataca ggttctcagg agcttctgtc agagacaggg atttctctgg
1141 atcctcggaa accagcctct cagtgtgttc tagatggagt tagaggctgt gatagctaca
1201 tggtttattt gtttgataaa agtaagactg tatatgaagg accatttgca tccagaagtt
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1381 ggctcttcca gggacaaaga gcagcaatgt taagtcttct tagatataat gctaacttga
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1501 ttcgaaaaag cattcagctt gacttggaga gatatagtga gcagatgact tatgggatat
1561 cttcagaaaa aatgttaaaa gcatggaaag aaatggaaga aaaggccatt cactattctg
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1681 agctgcagaa gagcccctac ggacgacgcc agggagactt gatggagtct ctggagcagc
1741 gtgccattga tctctataag cagctaaagc acagacctcc tgatcacttg tacagcgaca
1801 gcacagagat ggtgaagatc atcgtgcaca ccgtgcagag tcaggaccgt gttctcaagg
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2101 tgcccctac attagcagac cgtgaacatc ctctgacatg tgtggtaact cctcaagatg
2161 gagagacgtt agcacaaatg atagaagaaa atctgaactg tcttggccat ttaagtacta
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2341 actccaaagt catctttact tgctgaagcc attcctcact taccagtccg tgaggagatg
2401 gctgtgatcg gaaactacga gtgactttac aagcacagta gcttggtgtt ttgtttgttt
2461 ctaataatta tgatctctga acagatagaa ttttatagca aattagtgaa attaattatt
```

Figure 25 (B)

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2521 ctttttaaca ccgcaactaa tgagggagat cattagtgac ctgcttatct tataaaattg
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2641 cggcataagg cccaacatgg tattagtata caggaatgaa aaattcaccc agtgttcatt
2701 tgaagtaaag ttttatctat gggtttttctg tggaagagac tgctgacaag taaaattgct
2761 cttcctgaag actaagccca gcctccttgt gttgctctca gcaagtgttc ttcatggcat
2821 cacatggagt cagatgaatc ccatctttaa tcacacattt aatagagtcc ttttcctgtg
2881 taaggggttg dactttttgtg cctttgatat cagctgacca taatgaattg tgttgtgtgc
2941 tatatgtata tgtatttaag gtgtacattt aataatatca aagagaagat gcctgttaat
3001 ttataatgta tttgaaagtt gtattgtttt tgcatttgta aaaatgggtt acttgtttaa
3061 acaatctttt atgtcttgtc atacaaattc caaagggtct gcattccttt atctgtaatt
3121 acagtctcag aatccaagtt ctgaaaacaa ggtatctatt ctgatctgac actggatctg
3181 cttatcccat ttagtgtgaa tattcattga tttatgtgtt tgattattgg gatgtgctgc
3241 cacaggctct cttgaaggtt gatgtagtgt ggcgtatgca ctgaattacc tttctaaaat
3301 ctgaacagtt ctcattctga aacatctaga cttaagggtt tcagataaaa gactgcggtt
3361 ctctgcctta tgttaaataa cttagaagat gttattttgt ttgaaaaaat gtgaaatgct
3421 tttatattct agttttcac tttgcatatt aaatgatttt aaaatt
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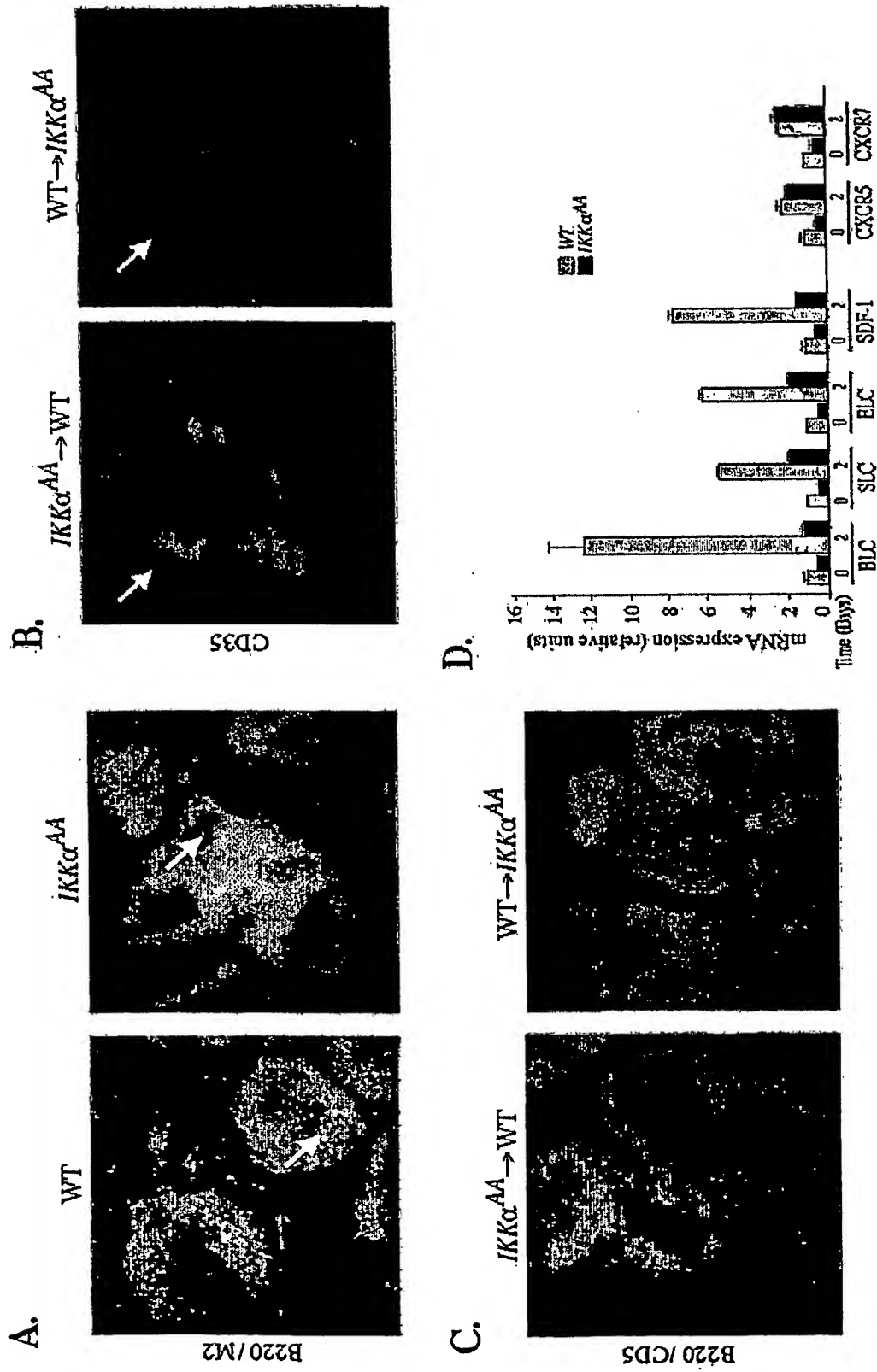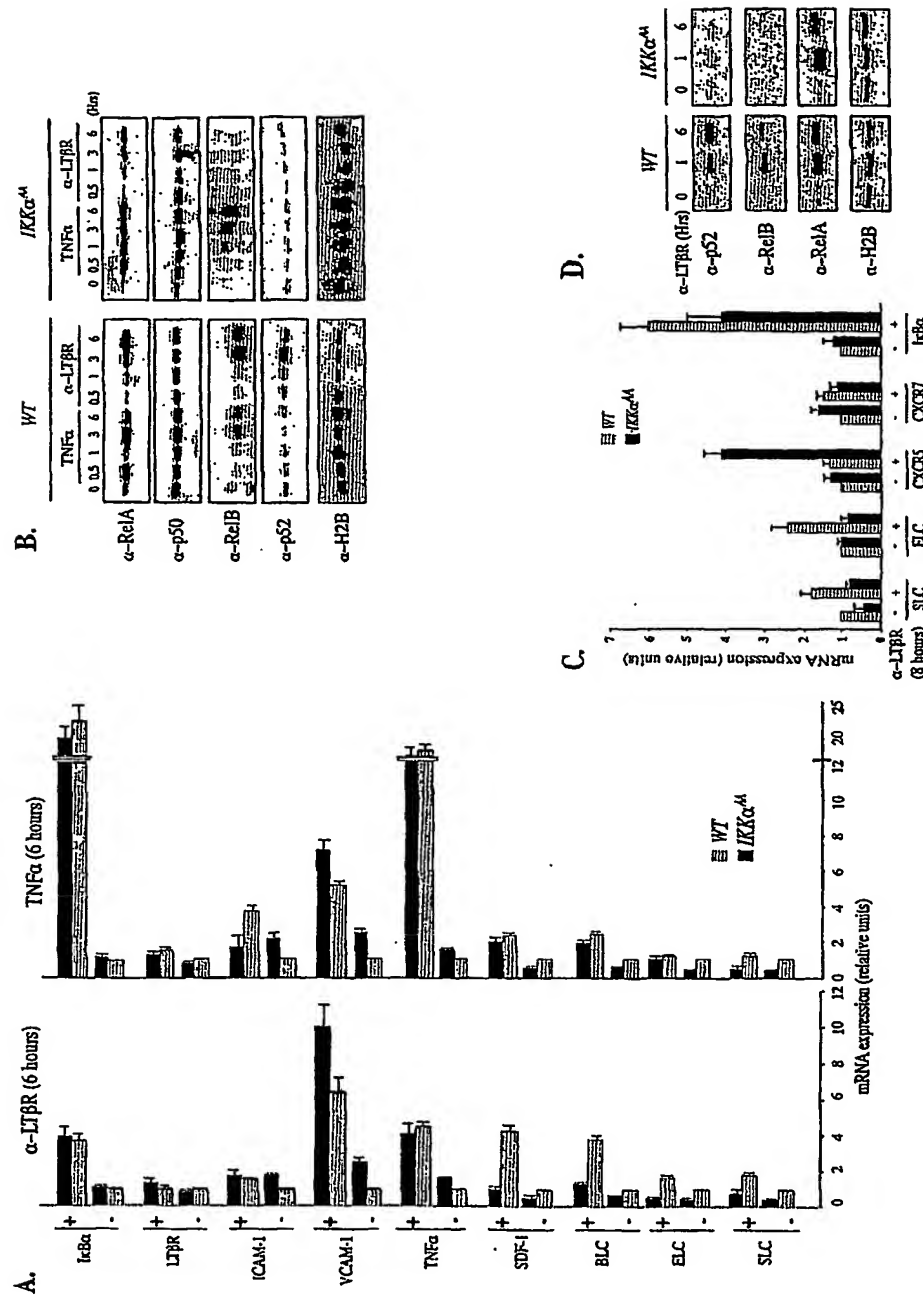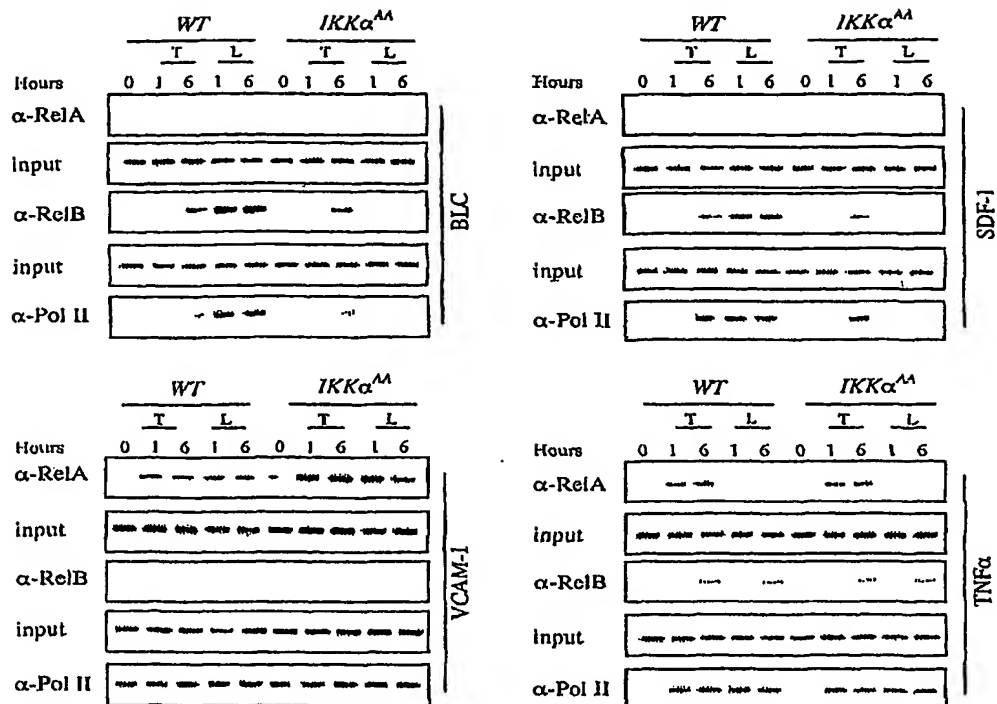
27/36

Fig. 26
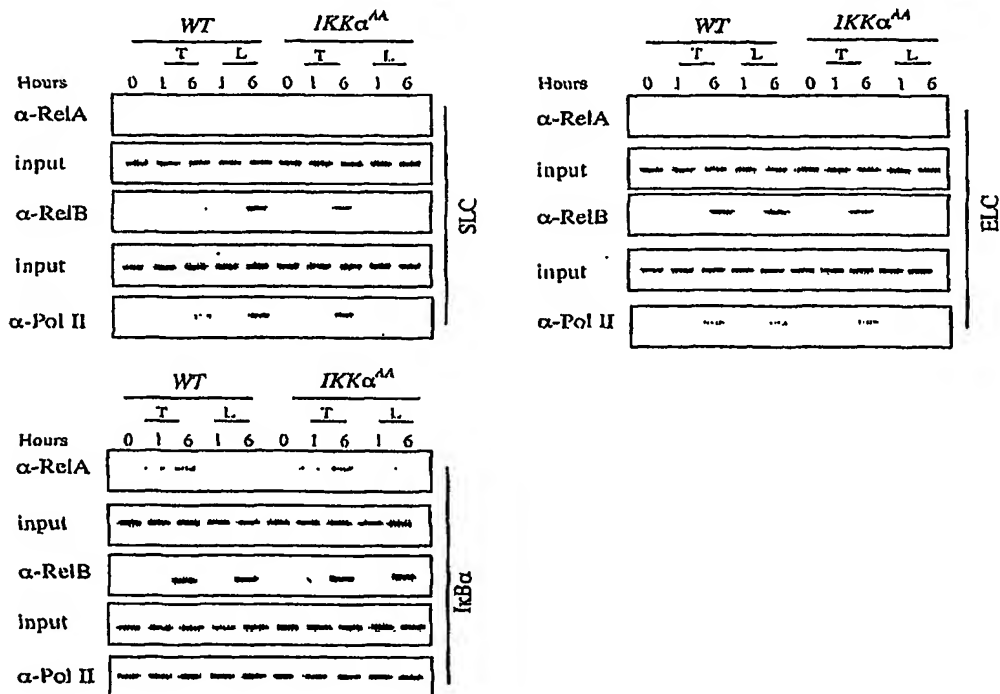
Fig. 27

Fig. 28

Fig. 29

Fig. 30

Figure 31

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GPMGPGPGQSGPKPPIPPPPPHQQQQQPPPQQPPPQQPPPHQPPPHPQPHQQQQPPPP
PQDSSKPVVAQGPGPAPGVGSTPPASSSAPPATPPTSGAPPGSGPGPTPTPPPAVTSA
PPGAPPPTPPSSGVPTTPPQAGGPPPPPAAVPGPGPGPKQGPGPGGPKGGKMPGGPKP
GGGPGLSTPGGHPKPPRRGGGEPRGGRQHHPPYHQQHHQGPPPGGPGGRSEEKISDSE
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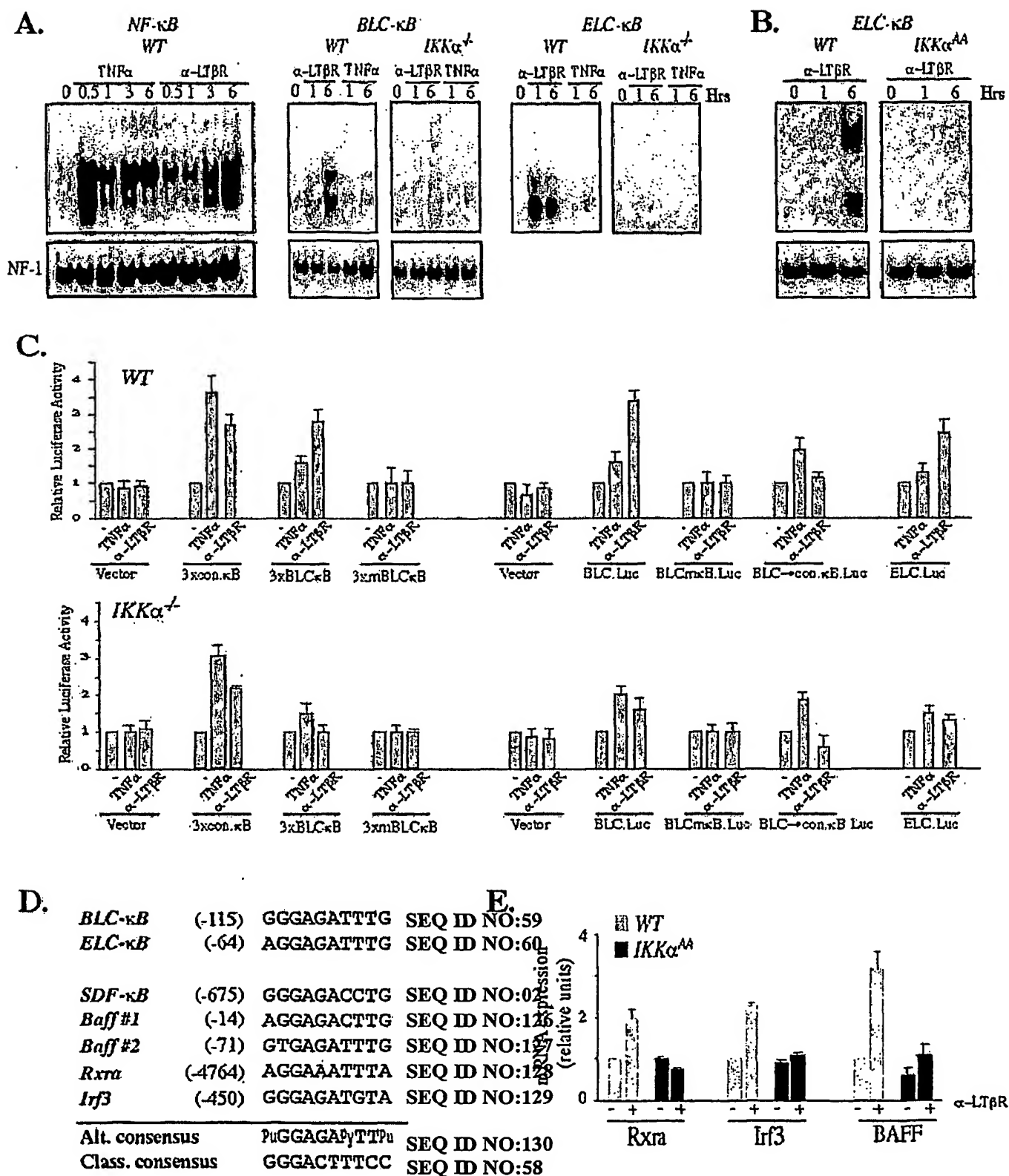
Figure 32

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 121 gtggcggtgg cggtggtggc ttccacaggc gtggaggagg cggcggccgc ggcggcctcc
 181 acgacttccg ttctccgccg cccggcatgg gcctcaatca gaatcgcggc cccatgggtc
 241 ctggcccggg ccagagcggc cctaagcctc cgatcccgcc accgcctcca caccaacagc
 301 agcaacagcc accaccgcag cagccaccgc cgcagcagcc gccaccgcat cagccgccgc
 361 cgcatccaca gccgcatcag cagcagcagc cgccgccacc gccgcaggac tcttccaagc
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 481 gctcggcccc gcccgccact ccaccaacct cgggggcccc gccagggtcc gggccaggcc
 541 cgactccgac cccgccgcct gcagtcacct cggcccctcc cggggcgccg ccacccaccc
 601 cgccaagcag cggggtccct accacacctc ctcaggccgg aggcccgccg cctccgcccg
 661 cggcagtccc gggcccgggt ccagggccta agcagggccc aggtccgggt ggtcccaaag
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1081 acaaaggcaa aggattcgga tttattaagc ttgaatctag agctttggct gaaattgcca
1141 aagccgaact ggatgataca cccatgagag gtagacagct tcgagttcgc tttgccacac
1201 atgctgctgc cctttctgtt cgtaatcttt caccttatgt ttccaatgaa ctgttggaag
1261 aagcctttag ccaatttggt cctattgaaa gggctgttgt aatagtggat gatcgtggaa
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1981 agaaatttcc acctctagga ggtggtggtg gcataggtta tgaagctaat cctggcgttc
2041 caccagcaac catgagtggt tccatgatgg gaagtgacat gcgtactgag cgctttgggc
2101 agggaggtgc ggggcctgtg ggtggacagg tcctagagg aatggggcct ggaactccag
2161 caggatatgg tagagggaga gaagagtacg aaggcccaaa caaaaaaccc cgattttaga
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2341 aatatttgta aatggtctgt ttgggcaggt aaaattatgt aatgcagtgt ttggaacagg
2401 agaatttttt tttccttttt atttctttat ttttcttt ttactgtata atgtccctca
2461 agtttatggc agtgtacctt gtgccactga atttccaaag tgtaccaatt ttttttttt
2521 tactgtgctt caaataaata gaaaaatagt tataaaaaaa aaaaaaaaaa aaaaaaaaaa
2581 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
```

Figure 33

```
  1 MSRDRFRSRG GGGGGFHRRG GGGGRGGLHD FRSPPPGMGL NQNRGPMGPG PGGPKPPLPP
 61 PPPHQQQQQP PPQQPPPQQP PPHQQPPPHQ PPHQQPPPPP QESKPVVPQG PGSAPGVSSA
121 PPPAVSAPPA NPPTTGAPPG PGPTPTPPPA VPSTAPGPPP PSTPSSGVST TPPQTGGPPP
181 PPAGGAGPGP KPGPGPGGPK GGKMPGGPKP GGGPGMGAPG GHPKPPHRGG GEPRGGRQHH
241 APYHQQHHQG PPPGGPGPRT EEKISDSEGF KANLSLLRRP GEKTYTQRCR LFVGNLPADI
301 TEDEFKRLFA KYGEPGEVFI NKGKGFGFIK LESRALAEIA KAELDDTPMR GRQLRVRFAT
361 HAAALSVRNL SPYVSNELLE EAFSQFGPIE RAVVIVDDRG RSTGKGIVEF ASKPAARKAF
421 ERCSEGVFLL TTTPRPVIVE PLEQLDDEDG LPEKLAQKNP MYQKERETPP RFAQHGTFEY
481 EYSQRWKSLD EMEKQQREQV EKNMKDAKDK LESEMEDAYH EHQANLLRQD LMRRQEELRR
541 MEELHSQEMQ KRKEMQLRQE EERRRREEEM MIRQREMEEQ MRRQREESYS RMGYMDPRER
601 DMRMGGGGTM NMGDPYGSGG QKFPPLGGGG GIGYEANPGV PPATMSGSMM GSDMRTERFG
661 QGGAGPVGGQ GPRGMGPGTP AGYGRGREEY EGPNKKPRF
```

Figure 34

```
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2461 aaaa
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